



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,619	10/29/2001	Colin P. Britton	0103488-00005	9011

21125 7590 07/08/2003
NUTTER MCCLENNEN & FISH LLP
WORLD TRADE CENTER WEST
155 SEAPORT BOULEVARD
BOSTON, MA 02210-2604

EXAMINER

ABEL JALIL, NEVEEN

ART UNIT	PAPER NUMBER
2175	11

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary	Applicati n No.	Applicant(s)
	10/051,619	BRITTON ET AL.
	Examiner	Art Unit
	Neveen Abel-Jalil	2175

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____ .
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

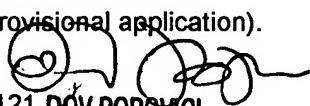
Disposition of Claims

- 4) Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Pri rity under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____ .
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6-9.

- 4) Interview Summary (PTO-413) Paper No(s) _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-8, 9-13, and 17-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Lipkin et al. (U.S. Pub. No. 2002/0049788 A1).

As to claim 1, Lipkin et al. discloses a digital data processing (See page 1, column 2, lines 47-55, wherein “digital data processor” reads on “computer”) method comprising transforming data from a plurality of databases into resource description framework (RDF) triples (See page 61, column 2, lines 56-67, also see page 69, column 2, lines 54-67, and see page 70, column 1, lines 24-35),

storing the triples in a data store, and
traversing one or more of the triples in the data store using a genetic algorithms in order to identify data responsive to a query (See page 70, column 1, lines 26-37, also see page 70, column 2, lines 42-67, and page 71, column 1, lines 1-18).

As to claim 2, Lipkin et al. discloses wherein the transforming step includes transforming data from a plurality of databases of disparate variety (See page 73, column 2, lines 34-59).

As to claim 3, Lipkin et al. discloses wherein the data is any of marketing, e-commerce or transactional data (See page 3, column 2, lines 60-67, and page 4, column 1, lines 1-5, also see page 58, column 2, lines 1-14).

As to claim 7, Lipkin et al. discloses wherein the storing step includes storing the triples such that related data from the plurality of databases is represented by uniform resource indicators (URIs) (See page 69, column 2, lines 26-52) in a hierarchical ordering (See page 9, column 2, lines 43-67, wherein the table shows the hierarchical ordering of the URI).

As to claim 8, Lipkin et al. discloses wherein the RDF triples each have a subject, predicate and object (See page 69, column 2, lines 26-52, also see page 61, column 1, lines 18-39) and wherein the storing step includes storing the triples such that through each triple's object that triple's predicate (See page 69, column 2, lines 26-52) and subject are referenced (See page 61, column 1, lines 18-39).

As to claim 9, Lipkin et al. discloses a digital data processing method for real-time business visibility comprising collecting any of marketing, e-commerce and transactional data (See page 3, column 2, lines 60-67, and page 4, column 1, lines 1-5, also see page 58, column 2, lines 1-14) from a plurality of databases (See page 8, column 2, lines 17-31, wherein "plurality of databases" reads on between databases"), at least two of which are of disparate variety (See page 14, column 1, lines 11-21, wherein "disparate variety" reads on "multiple languages,

currency , and other data types”), storing the collected data in a schema-less data store (See page 22, column 1, lines 1-28, wherein “schema-less” reads on “convert the array into a single String by concatenating the elements within the array”).

As to claim 10, Lipkin et al. discloses comprising transforming the collected data into resource description framework triples before storing it to the data store (See page 63, column 1, lines 40-62, also see page 64, column 2, lines 4-9).

As to claim 11, Lipkin et al. discloses wherein the collecting step includes applying one or more queries to the plurality of databases in order to collect the marketing, e-commerce and transactional data (See page 3, column 2, lines 60-67, and page 4, column 1, lines 1-5, also see page 58, column 2, lines 1-14).

As to claim 12, Lipkin et al. discloses wherein the collecting step includes applying the one or more queries in accord with a data mining technique (See page 63, column 1, lines 64-67, and page 63, column 2, lines 1-9, wherein “data mining technique” reads on “direct query graph”).

As to claim 13, Lipkin et al. discloses comprising traversing one or more of the RDF triples in the data store using a genetic algorithms in order to identify data responsive to a query (See page 70, column 1, lines 26-37, also see page 70, column 2, lines 42-67, and page 71, column 1, lines 1-18).

As to claim 17, Lipkin et al. discloses a digital data processing method comprising: transforming any of marketing, e-commerce and transactional data (See page 3, column 2, lines 60-67, and page 4, column 1, lines 1-5, also see page 58, column 2, lines 1-14) from a plurality of databases (See page 73, column 2, lines 34-59) into resource description framework (RDF) triples (See page 61, column 2, lines 56-67, also see page 69, column 2, lines 54-67, and see page 70, column 1, lines 24-35), where at least two of the databases are of disparate variety, storing the triples in a data store (See page 69 column 2, lines 54-67, and see page 70, column 1, lines 24-35, also see page 14, column 1, lines 32-41, also see page 21, column 1, lines 43-48), and forming collections from triples in the data store (See page 19, column 2, lines 14-22, wherein “bags” reads on “container”).

As to claim 18, Lipkin et al. discloses wherein the storing step includes storing the triples such that related data from the plurality of databases are related in a hierarchy (See page 18, column 1, lines 39-63, also see page 23, column 2, lines 9-37), the forming step includes comparing sequential levels of triples in the hierarchy (See page 9, column 2, lines 43-67, wherein the table shows the hierarchical ordering of the URI).

As to claim 19, Lipkin et al. discloses comprising utilizing the forming step to form collections responsive to a query (See page 72, column 1, lines 1-21, wherein “collections” reads on “container”).

As to claim 20, Lipkin et al. discloses comprising utilizing the forming step to reduce data redundancy (See page 71, column 1, lines 27-67, and page 71, column 2, lines 1-25).

As to claim 21, Lipkin et al. discloses wherein the storing step includes storing any of version numbers, uniqueness identifiers, serial numbers, confidence level, or other adjectival data along with at least selected triples (See page 64, column 2, lines 1-6, also see page 65, column 2, lines 16-30).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4-6, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al. (U.S. Pub. No. 2002/0049788 A1) in view of Schuetze et al. (U.S. Pub. No. 2003/0074369 A1).

As to claims 4, and 14, Lipkin et al. does not disclose wherein the traversing step includes performing a plurality of searches on the data store, each search utilizing a different methodology.

Schuetze et al. teaches wherein the traversing step includes performing a plurality of searches on the data store, each search utilizing a different methodology (See page 2, column 2, lines 47-67, also see page 3, column 2, lines 8-17).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Lipkin et al. to include wherein the traversing step includes performing a plurality of searches on the data store, each search utilizing a different methodology.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Lipkin et al. by the teaching of Schuetze et al. to include because having a variety of search retrieval methods to access data from disparity of databases reduces business costs by keeping all data separate and secure and only having access to needed information.

As to claims 5, and 15, Lipkin et al. as modified discloses wherein the traversing step further comprises comparing results of one or more of the searches (See Schuetze et al. page 19, column 1, lines 16-42, also see Schuetze et al. page 17, column 1, lines 31-40).

As to claims 6, and 16, Lipkin et al. as modified discloses wherein the traversing step further comprises discerning from the comparison one or more of the searches that produce better results and re-performing those one or more searches on the data store with any of additional terms or further granularity (See Schuetze et al. page 3, column 1, lines 28-40,

wherein “discerning from the comparison” reads on “exclude”, also see page 4, column 1, lines 1-23).

5. Claims 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lipkin et al. (U.S. Pub. No. 2002/0049788 A1) in view of Hsiung et al. (U.S. Pub. 2003/0109951 A1).

As to claim 22, Lipkin et al. discloses a digital data processing method comprising transforming any of marketing, e-commerce and transactional data (See page 3, column 2, lines 60-67, and page 4, column 1, lines 1-5, also see page 58, column 2, lines 1-14) from a plurality of databases (See page 73, column 2, lines 34-59) into resource description framework (RDF) triples (See page 61, column 2, lines 56-67, also see page 69, column 2, lines 54-67, and see page 70, column 1, lines 24-35) where at least two of the databases are of disparate variety, storing the triples in a data store (See page 63, column 2, lines 45-51, wherein “data store” reads on “database”).

Lipkin et al. does not teach storing expiry data with at least selected ones of the triples.

Hsiung et al. teaches storing expiry data with at least selected ones of the triples (See Hsiung et al. page 26, column 1, lines 44-67, and see Hsiung et al. page 26, column 2, lines 1-14, wherein “expiry data” reads on “default time frame” by having time under user control, it indicates starting and finishing time and therefore expiration).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Lipkin et al. to include storing expiry data with at least selected ones of the triples.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Lipkin et al. by the teaching of Hsiung et al. to include storing expiry data with at least selected ones of the triples because allocating a time limit to the data (triples) creates useful to efficient store and manage data to eliminate and notify access (unused) old data and information.

As to claim 23, Lipkin et al. as modified discloses comprising any of deleting and tagging as stale triples based on expiry data associated therewith (See Hsiung et al. page 26, column 1, lines 44-67, and see Hsiung et al. page 26, column 2, lines 1-14, wherein “expiry data” reads on “default time frame” by having time under user control, it indicates staring and finishing time and therefore expiration).

As to claim 24, Lipkin et al. as modified discloses comprising: searching the triples for data responsive to a query (See page 63, column 2, lines 45-51, also see page 69, column 2).

Lipkin et al. does not teach returning such data along with a confidence factor.

Hsiung et al. teaches returning such data along with a confidence factor (See Hsiung et al. page 14, column 2, lines 36-46, also see Hsiung et al. page 16, column 1, lines 45-67).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Lipkin et al. to include returning such data along with a confidence factor.

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to have modified Lipkin et al. by the teaching of Hsiung et al. to include returning

such data along with a confidence factor because assigning confidence values to search results allows for efficient and faster access and retrieval of the database by showing the best matched results to the query and ranking them according to predefined specifications.

As to claim 25, Lipkin et al. as modified discloses comprising generating the confidence factor (See Hsiung et al. page 14, column 2, lines 36-46, also see Hsiung et al. page 16, column 1, lines 45-67) based on expiry data associated with a triple (See Hsiung et al. page 26, column 1, lines 44-67, and see Hsiung et al. page 26, column 2, lines 1-14, wherein “expiry data” reads on “default time frame” by having time under user control, it indicates starting and finishing time and therefore expiration).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nelson et al. (U.S. Patent No. 6,243,713) teaches confidence factor in multimedia retrieval.

Miller et al. (U.S. Pub. 2002/0091678) teaches multi-query data visualization processes.

Bookman et al. (U.S. Pub. 2003/0050929) teaches automated creation and delivery of database content.

Caplan (U.S. Pub. 2003/0050834) teaches dynamic interactive customer portals.

Art Unit: 2175

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114.

The examiner can normally be reached on 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Neveen Abel-Jalil
June 16, 2003



DOV POPOVICI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100